

NONPROVISIONAL APPLICATION FOR LETTERS PATENT

UNITED STATES OF AMERICA

5 Be it known that I, Brian Anderson, residing at 5007 Central
Church Road, Douglasville, Georgia 30135, a citizen of the
United States of America, have invented certain new and useful
improvements in a

10 **DEVICE AND METHOD FOR REMOVAL OF BURGLAR BARS**

of which the following is a specification:

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DEVICE AND METHOD FOR REMOVAL OF BURGLAR BARS**TECHNICAL FIELD**

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The present invention relates generally to an apparatus and method for attaching to burglar bars for assistance in the removal thereof from over doors and/or windows.

10

BACKGROUND OF THE INVENTION

Heightened security has caused many individuals to supplement their doors and windows with bar-like devices to prevent someone from unauthorized entry. Typically, the bar-like devices are constructed to form door and/or window shapes and are mounted exterior to the remaining conventional door and/or window. Generally, individuals installing such burglar bar doors and windows are law-abiding citizens concerned about entry by criminal elements. Occasionally, however, criminals also utilize such devices to impede entry of law enforcement personnel in order to increase time available to make an escape and/or to destroy evidentiary material.

Law enforcement officers need a method of entry through such burglar bar doors and windows that is rapid and easy to utilize. Heretofore, devices available to law enforcement officers have been cumbersome and difficult to use, and do not
5 allow swift entry through such burglar bars.

There are various devices and methods available, all of which are disadvantageous, impractical and/or problematic. For example, battering ram devices have long been utilized for
10 opening doors; however, they are not suitable for opening barred doors. Battering rams either pass through the openings in between the bars, or are deflected by the bars. Additionally, such devices require a perpendicular approach to a door in order to apply a battering force, and such is often
15 not possible, as in the case of tight and/or narrow hallways. Moreover, to attempt to remove both a burglar bar door and a conventional door simultaneously with a battering ram compounds an altogether difficult problem.

20 Winch devices have occasionally been utilized to pull doors away from their frame. While such methods are suitable for removal of burglar bar doors in some instances, they typically require that the winch be located close to the door,

have a straight path to the door, and be affixed to a rigid object. Use of truck-mounted winches rarely affords an opportunity for use to remove burglar bar doors, since positioning a truck near enough to the doors is typically
5 impractical.

While some or all of the above-referenced devices may well be utilized for opening doors or even burglar bar doors and/or windows in some situations, each disadvantageously
10 fails to adequately provide a device that can be readily maneuvered, handled and transported.

Therefore, it is readily apparent that there is a need for a novel device and method for removal of burglar bar
15 doors, thereby enabling rapid, efficient removal of such doors and avoiding the above-discussed disadvantages.

BRIEF SUMMARY OF THE INVENTION

20 Briefly described, in a preferred embodiment, the present invention overcomes the above-mentioned disadvantages and meets the recognized need for such a device by providing a method and apparatus for swift removal of burglar bar doors

and windows and/or further removal of any remaining conventional door or window once the burglar bar door has been removed.

5 According to its major aspects and broadly stated, the present invention in its preferred embodiment is a massive body having handles, to facilitate maneuvering, and an attached chain, wherein the chain can be quickly secured around burglar bar doors and/or windows and the massive body
10 maneuvered in such fashion as to rapidly and forcibly remove the burglar bar door and/or window away from its supports. The device of the present invention can then be carried in a return motion into the remaining entry door in much the same way as a conventional battering ram.

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Thus, the present invention relates to a device that could be utilized by law enforcement officers to quickly remove burglar bar doors and/or windows, and to subsequently rapidly enter through remaining entry doors. It is further
20 suitable for facilitating quick entry by fire department personnel to save trapped people, children, pets, etc.

A feature and advantage of the present invention is its ability to be handled by a minimum complement of users.

A further feature and advantage of the present invention is that it is suitable for removing both burglar bar doors and burglar bar windows.

A feature and advantage of the present invention is that it is suitable for assistance in removing burglar bars and conventional entry doors.

A further feature and advantage of the present invention is its ease of manufacture and low cost of production.

A further feature and advantage of the present invention is that it can be readily transported in a passenger vehicle.

A feature and advantage of the present invention is that it can be utilized in tight hallways or otherwise constricted spaces.

Another feature and advantage of the present invention is its suitability to be made in different sizes and/or weights

to meet the needs of removal of different strength burglar bars and/or doors.

These and other features and advantages of the present invention will become more apparent to one skilled in the art from the following description and claims when read in light of the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

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Having thus described the invention in general terms, the present invention will be better understood by reading the Detailed Description of the Preferred and Selected Alternate Embodiments with reference to the accompanying drawing figures, which are not necessarily drawn to scale, and in which like reference numerals denote similar structures and refer to like elements throughout, and in which:

FIG. 1 is a perspective view of the body of a device according to a preferred embodiment of the present invention;

FIG. 2A is a partial perspective view of the top of a device according to a preferred embodiment of the present invention, showing the chain;

5 **FIG. 2B** is a cutaway view of the top of a device according to an alternate embodiment of the present invention, showing the chain securing mechanism; and

10 **FIG. 3** is a perspective view of a device according to a preferred embodiment of the present invention, showing the device in use.

DETAILED DESCRIPTION OF THE PREFERRED AND ALTERNATIVE

EMBODIMENTS

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In describing the preferred and selected alternate embodiments of the present invention, as illustrated in the Figures, specific terminology is employed for the sake of clarity. The invention, however, is not intended to be limited to the specific terminology so selected, and it is to be understood that each specific element includes all technical equivalents that operate in a similar manner to accomplish similar functions.

The present invention arose from a need for a device and method for entry through burglar bar doors and windows in a rapid, easy fashion, in order to facilitate quick entry into a building protected therewith.

The present invention is suitable for, but not limited to, use by law enforcement personnel and other emergency personnel, such as, for exemplary purposes only, fire department personnel.

Referring now to **FIG. 1, 2A, and 3**, apparatus **10** preferably has body **20**, wherein body **20** is preferably generally cylindrically-shaped. It will be recognized by one skilled in the art that body **20** may take forms other than cylindrical and would still be within the confines of the present invention. To facilitate use of apparatus **10** in confined spaces, body **20** is preferably approximately thirty-six inches long; however, any length body could be utilized. Preferably, body **20** is somewhat weighty, whereby force applied thereby is maximized, but portability remains reasonable. Thus, preferably the weight of body **20** is between approximately thirty and approximately seventy pounds. The

inventor has found that approximately fifty pounds affords the optimum balance between ability to apply force and transportability, when used in police applications. Although such weight is preferred, body **20** could have less or more weight, wherein effectiveness and/or portability would likely be influenced. Body **20** is preferably made from a high-strength, high-density material, such as, for exemplary purposes only, iron or steel, although other materials will be recognized as suitable. Moreover, any material, or combination of materials, capable of exhibiting strength under forceful pressure could be used to manufacture body **20**. Apparatus **10** may be solid, hollow or partially hollow. For non time-critical applications where apparatus **10** may under adequate preparation, body **20** may be filled with water, sand and/or other material of adequate density, thus facilitating transport when empty.

The preferred cylindrical shape of body **20** is preferably defined by elongated tube **24**. Preferably, base plate **26** is fixably attached to second end **28** of tube **24**, preferably via attachment means **44**, preferably via welding. Preferably, cover plate **32** is fixably attached to first end **34** of tube **24** via attachment means **40**. In the preferred embodiment,

attachment means **40** and **44** are welding; however, any suitable means of attachment could be utilized for either attachment means **40** and/or **44**.

5 As depicted in **FIGS. 1, 2A, and 3**, preferably, handles **46a, 46b, 46c** and **46d** are carried on body **20**, such that handles **46a** and **46b** are preferably opposingly positioned proximate first end **50** of body **20**, and handles **46c** and **46d** are preferably opposingly positioned proximate second end **54** of
10 body **20**. Preferably, handles **46a** and **46c** are longitudinally aligned relative to one another and body **20**, and also preferably, handles **46b** and **46d** are longitudinally aligned relative to one another and body **20**.

15 Each handle **46a, 46b, 46c** and **46d** is generally U-shaped, wherein the 'U' is defined by first leg **56a, 56b, 56c** and **56d**, respectively, base leg **60a, 60b, 60c** and **60d**, respectively, and second leg **62a, 62b, 62c** and **62d**, respectively. Preferably, base legs **60a, 60b, 60c** and **60d** are dimensioned to
20 enable comfortable placement of a user's hand thereon, accommodating the width of the user's hand along the length thereof. Preferably first legs **56a, 56b, 56c** and **56d** and second legs **62a, 62b, 62c** and **62d** are substantially equal in

length, wherein the length thereof is dimensioned to enable comfortable placement of a user's hand between base legs **60a**, **60b**, **60c** and **60d**, and body **20**.

5 Although a U-shape is preferred for handles **46a**, **46b**, **46c** and **46d**, any suitable shape could be utilized, wherein appropriate support could be realized for body **20** and comfortable receipt of user's hands could be enabled. Additionally, although four handles **46a**, **46b**, **46c** and **46d** are
10 preferred, apparatus **10** could have any number of handles, such as, for exemplary purposes only, two handles, for use by one individual, or could have more than four handles, for use by more than two individuals or to enable multiple hand placement selections. Also, although it is preferred that handles **46a**,
15 **46b**, **46c** and **46d** are welded to body **20**, one skilled in the art would readily recognize that handles **46a**, **46b**, **46c**, and **46d** could be integrally formed with body **20**, or could otherwise be secured by a fastening means, such as, for exemplary purposes only, via expansion bolts or the like.

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Base plate **26** is preferably iron or steel, and preferably generally rectangular-shaped, although it will be recognized that other shapes, such as, for exemplary purposes only,

circular, would also serve. Preferably located proximate to base **26** are fillets **68a** and **68b**, preferably formed of steel or iron, or other suitable material, and preferably secured, such as, for exemplary purposes only, by welding at edges **70a** and **70b**, respectively, to tube **24**, and by welding at bottoms **72a** and **72b**, respectively, to base plate **26** and body **20**, preferably proximate second end **28** of tube **24**. Preferably, base surfaces **27** of base plate **26** are preferably flat, whereby upright positioning of apparatus **10** is thereby enabled, and whereby fillets **68a** and **68b** provide reinforcement support to base plate **26** during such an upright standing position.

Throughhole **76** is preferably defined in cover plate **32** and is dimensioned to permit passage of chain **82** therethrough. Throughhole **76** preferably defines a circular opening; however, any shaped opening appropriately sized for chain **82** could be utilized. Chain **82** is preferably of a length suitable for portability, yet capable of extending round bars during use, wherein a preferred length is approximately eight feet; however, any desirable length could be utilized. Chain **82** is preferably formed from sturdy links capable of transport, wherein five-sixteenth inch chain link is optimum, but any appropriately strong link could be utilized. First end **96** of

chain **82** is preferably secured substantially within body **20** via cross-support retention rod **98**, wherein link **110** of chain **82** is preferably positioned with cross-support retention rod **98** extending therethrough. Preferably, cross-support retention ports **95a** and **95b** are defined through body **20**, and is dimensioned to receive cross-support retention rod **98** therethrough. In the preferred embodiment, cross-support retention rod **98** is a bolt, preferably secured via nut **112** to retain chain **82**. It is contemplated that cross-support retention rod **98** could be secured via locking pins, dual nuts, or via any other appropriate means, and that cross-support retention of chain **82** could be accomplished via any appropriate means, including such means positioned exterior to body **20**. That is, chain **82** could be welded to, or in, body **20**, or could be affixed via an eye or caribiner-type loop/clip mechanism.

Attachment means **140**, such as, for exemplary purposes only, a carabiner **142**, is preferably located at second end **114** of chain **82**, and is preferably suited for quick attachment and removal of chain **82** from a linked position around a target object such as burglar bars **B**, as shown in **FIG. 3**. Chain **82** preferably includes relocatable attachment point means **130**,

such as, for exemplary purposes only, clevis **132**. Preferably, attachment point means **130** is removable and may be positioned at any link **118**, particularly at a suitable distance from second end **114** of chain **82** to preferably facilitate passage of second end **114** with carabiner **142**, preferably between the bars **B** of burglar bar door or window **BD**, preferably allowing carabiner **142** to then be preferably secured to clevis **132**.

FIG. 3 depicts apparatus **10** in its preferred use. Apparatus **10** is preferably secured around a selected portion of a burglar bar door or window **BD**. That is, preferably chain **82** is passed through and between bars **B** of burglar bar door or window **BD** and carabiner **142** is preferably secured to clevis **132**. First user **P'** preferably grips apparatus **10** preferably via handles **46a** and **46c**. Second user **P''** preferably grips apparatus **10** preferably via handles **46b** and **46d** (best shown in **FIG. 1**). Users **P'** and **P''** preferably jointly swing apparatus **10** away from burglar bar door or window **BD**, preferably causing chain **82** to tighten, thereby preferably pulling burglar bar door or window **BD** away from its securing frame. As burglar bar door or window **BD** comes open, it preferably swings away to one side or the other. User **P'** (for example the user on the side of burglar bar door or window **BD** that remains attached),

preferably releases his grip on apparatus **10**, and then either one or both users **P'** and **P''** preferably return apparatus **10** towards exposed conventional door or window **CD** preferably battering conventional door or window **CD** open to permit entry
5 therethrough.

In an alternate embodiment as shown by **FIG. 2B**, body **20** is made from inner **22** and outer **24** concentric pieces of tubing. In this embodiment, cover plate **32** is fixably
10 attached to first end **34** of outer tube **24** and first end **36** of inner tube **22**, wherein cover plate **32** is secured to inner tube **22** and outer tube **24** via attachment means **38** and **40**, such as, for exemplary purposes only, via welding. Shaft **77** is defined by inner tube **22** having first opening **78**. Shaft **77** is
15 preferably cylindrically-shaped, wherein shaft **77** has a diameter suitable for accommodation of chain **82**, wherein shaft **77** functions to reduce the available range of movement of chain **82** within cavity **94** of body **20**.

20 It is contemplated in an alternative embodiment that apparatus **10** could have several chains **82** as part thereof in order to secure in different locations on burglar bar door and/or window **BD**, or could utilize reinforced steel wire or

other such generally flexible and strong material in lieu of,
or in addition to, chain **82**.

It is contemplated that apparatus **10** could be transported
5 with chain **82** stored substantially within body **20**.

It is envisioned in another alternative embodiment that
apparatus **10** could be carried as individual components and
assembled in the field by law enforcement, fire or other
10 emergency personnel.

It is contemplated that chain **82** could be any elongated
high strength member, such as, for exemplary purposes only, a
cable, a wire, a rod, a bar, or any combination or multitude
15 thereof.

It is further envisioned in an alternative embodiment
that apparatus **10**, in addition to being secured to burglar bar
door and/or window **BD**, could be securely suspended from above
20 and swung from such suspension point.

It is further contemplated that apparatus **10** could be
used by one person.

It is also contemplated that handles **46a**, **46b**, **46c** and **46d** could have features suitable to facilitate establishing a grip thereon.

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In another alternate embodiment, it is contemplated that apparatus **10** may be hollow for facilitating transportation and may be filled with a solid or fluid material just prior to use.

10 The foregoing description and drawings comprise illustrative embodiments of the present invention. Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in the art that the within disclosures are exemplary only, and that various other
15 alternatives, adaptations, and modifications may be made within the scope of the present invention. Merely listing the steps of the method in a certain order does not constitute any limitation on the order of the steps of the method. Many modifications and other embodiments of the invention will come
20 to mind to one skilled in the art to which this invention pertains having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is to be understood that the invention is not to

be limited to the specific embodiments disclosed and that modifications and other embodiments are intended to be included within the scope of the appended claims. Although specific terms are employed herein, they are used in a generic
5 and descriptive sense only and not for purposes of limitation. Accordingly, the present invention is not limited to the specific embodiments illustrated herein, but is limited only by the following claims.